

Title (en)

METHODS FOR PRODUCING AND USING ALKALINE AQUEOUS FERRIC IRON SOLUTIONS

Title (de)

VERFAHREN ZUM HERSTELLEN UND VERWENDEN VON ALKALISCHEN WÄSSRIGEN EISEN (III)-EISEN-LÖSUNGEN

Title (fr)

PROCÉDÉS DE PRODUCTION ET D'UTILISATION DE SOLUTIONS AQUEUSES ALCALINES DE FER FERRIQUE

Publication

EP 4048430 A4 20231115 (EN)

Application

EP 20878699 A 20201021

Priority

- US 201962924166 P 20191021
- US 202063029405 P 20200523
- US 202063032600 P 20200530
- US 2020056681 W 20201021

Abstract (en)

[origin: US2021113959A1] Methods for removing reduced sulfur compounds, such as hydrogen sulfide, from fluids employing a ferric iron salt that exhibits unusually high solubility in aqueous, alkaline solutions and has strong affinity for capture and oxidation of reduced sulfur compounds. Alkaline aqueous ferric iron salt and solutions thereof useful for removing reduced sulfur compounds from fluids and various methods of production of such salts and solutions. In addition, methods of regenerating the alkaline aqueous ferric iron salt solutions after capture of hydrogen sulfide or other reduced sulfur compounds, generally by exposure to oxygen in air. The alkali metal carbonate salt preferably comprises potassium carbonate and/or potassium bicarbonate. The alkaline aqueous ferric iron salt solutions generally comprise ferric ions, potassium ions, carbonate ions, and bicarbonate ions, optionally with one or more organic additives. In addition, aqueous-soluble, ferric iron salts and ferric iron containing solids prepared by removal of aqueous medium from solutions herein.

IPC 8 full level

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CPC (source: EP KR US)

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Citation (search report)

- [A] US 3933993 A 19760120 - SALEMME ROBERT M
- [A] US 3622273 A 19711123 - ROBERTS MELVIN L, et al
- See also references of WO 2021081106A1

Designated contracting state (EPC)

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